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| 09/425,644 | 10/22/1999 | WEN-KAI YEN | YEN-3 | 9833 |

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| EXAMINER | |
|---|---|
| LE, LANA N | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2685 | 11 |

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/425,644 | YEN, WEN-KAI | |
| | Examiner | Art Unit | |
| | Lana N Le | 2685 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *14 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlin (US 5,199,031) in view of Raith et al (US 5,729,531) and further in view of Giusto (US 3,914,695).

Regarding claim 1, Dahlin discloses a system for assigning a call to one of a plurality of wireless frequency channels in a wireless communication network, comprising: a wireless transceiver (fig. 3) that assigns the call to one of the plurality of wireless frequency channels after measurements are made to select the channel with the best signal strength (col 9, lines 60-63); and a modulation control device 130' (figure 3) that identifies one of the plurality of wireless frequency channels for the call and provides an assignment modulation parameter to the transceiver for assigning the call to the frequency channel (col 7, lines 30-43; col 7, lines 54-61). However, Dahlin didn't specifically disclose wherein the modulation control device uses the modulation parameter to identify the call, the mobile, and the frequency channel. Raith et al discloses the modulation control device uses the phase to identify the call, the mobile,

and the frequency channel (col 12, lines 29-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the modulation control device uses the modulation parameter to identify the call, the mobile, and the frequency channel in order to uniquely assign each call to each mobile on its own assigned frequency channel.

Dahlin and Raith didn't further disclose:

the phase is used as a modulation parameter.

Guisto discloses the phase is used as a modulation parameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the phase as a modulation parameter in order to phase shift the signal to a particular phase at a particular frequency at a certain time slot to secure the call.

Regarding claim 2, Raith further discloses the system in claim 1, wherein the wireless communication network comprises an advanced mobile phone system (AMPS) network (col 1, lines 20-30).

Regarding claim 3, Dahlin and Raith further discloses the system in claim 1, wherein Dahlin and Raith fail to further the modulation parameter assigned to the call is a phase adjustment value and other modulation parameters including timeslot and frequency. Giusto discloses the modulation parameter assigned to the call is a phase adjustment value and other modulation parameters including timeslot and frequency (col 3, lines 1-34; fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a phase adjustment value in order to for the

system of Dahlin and Raith to have a particular phase shift for assigning each separate call.

Regarding claim 4, Dahlin, Raith and Guisto disclose the system in claim 3, wherein Dahlin disclose the wireless communication network comprises a time division multiple access wireless network (col 2, lines 20-30).

Regarding claim 5, Dahlin, Raith and Guisto disclose the system in claim 3, wherein Raith disclose the wireless communications network comprises a time division multiple access personal communications system IIPCS network (col 1, lines 35-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a time division multiple access personal communications system IIPCS network in order to have a specific modulation format to accommodate a unique time slot for a mobile phone to communicate within its assigned channel.

Regarding claim 6, Dahlin, Raith and Guisto disclose the system in claim 3, wherein Raith further disclose the wireless communications network comprises a time division multiple access global system for mobile communications (GSM) network (col 1, lines 39-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have TDMA in GSM network to allow the use of narrowband time division multiplex which allows eight simultaneous calls on the same radio frequency.

Regarding claim 7, Dahlin discloses a system of claim 1, wherein the modulation control device 130' selects a next available frequency channel based on a frequency

channel quality measurement of a threshold detector (col 7, lines 18-22; col 8, lines 5-8).

Dahlin didn't further disclose the modulation control mechanism selects a modulation parameter, whereby the call is assigned to the next available frequency channel using the selected modulation parameter. Raith et al further discloses the modulation control mechanism selects a phase whereby the call is assigned to the next available frequency channel using the selected phase (col 13, lines 2-8; col 13, lines 39-48).

Dahlin and Raith et al didn't further disclose:

the phase is a modulation parameter is selected and to assign a call based on the parameter. Guisto discloses a modulation parameter is selected and to assign a call based on the parameter (col 3, lines 1-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the unique modulation parameter in order to allow the system to pick the optimal parameter for modulation to get a secured call.

Regarding claim 8, Dahlin further discloses the modulation control device of claim 7, wherein the modulation control mechanism 130' calculates modulation parameter to assign to the frequency channel (col 5, lines 55-65).

Regarding claim 9, Raith et al further discloses the modulation control device of claim 7, wherein the modulation control device stores a plurality of modulation parameters (table 1&2).

Regarding claim 10, Raith et al further discloses the system of claim 7, wherein the modulation control device selects the modulation parameter that substantially distinguished different calls on a single frequency channel (based on the unique phase that is assigned to the call; col 12, lines 30-35).

Regarding claim 11, Raith et al further discloses the system of claim 7, wherein the modulation control device selects the modulation parameter that provides a unique resultant modulation parameter value for the call on the frequency channel (col 12, lines 29-36).

Regarding claim 13, Dahlin discloses the method of claim 17 further comprising:

communicating the modulation parameter to a mobile unit that is associated with the call;

assigning a frequency channel to the call (col 7, lines 55-61);

Dahlin didn't further disclose: associating the modulation parameter with the call so that the modulation parameter can be used for transmitting the call and referenced for receiving the call.

Raith et al further discloses assigning a phase value to the call; communicating the phase value to a mobile unit that is associated with the call; and associating the phase value with the call so that the phase value can be used for transmitting the call and referenced for receiving the call (col 13, lines 38-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a phase to a mobile in order to efficiently distribute the mobiles to all the channels by allocating the mobiles to different phases based on the identification number of the mobile.

Raith and Dahlin didn't further disclose: the phase value is a modulation parameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the unique modulation parameter in order to allow the system to pick the optimal parameter for modulation to get a secured call.

Regarding claim 14, Dahlin discloses the method of claim 17 further comprising: measuring a transmission quality via the signal level meter 129' (fig. 3) of the frequency channels individually;

evaluating the transmission quality of each frequency channel via 130' until a first frequency channel having a suitable transmission quality is identified by ranking dedicated channels based on the evaluation of the signal strength (col 7,lines 30-43).

Regarding claim 15, Raith et al further discloses the method of claim 14 further comprising the step of associating the modulation parameterwith the call so that the modulation parameter can be used for transmitting the call and referenced for receiving the call (col 13, lines 54-57).

Regarding claim 16, Dahlin further discloses the method of claim 14 wherein the evaluating step comprises comparing the transmission quality of the frequency channel to a value for the frequencies of remaining channels until the transmission quality exceeds the value or has the highest signal strength level (col 7, lines 35-43).

Regarding claim 17, Dahlin discloses a method increasing the capacity in a wireless communication network (col 7, lines 20-22), the method comprising:

Dahlin didn't further disclose assigning a modulation parameter to the call of a mobile which is using one of a plurality of frequency channels of the communication

network wherein the modulation parameter identifies the call, the mobile and the frequency channel.

Raith et al further discloses assigning a first phase value to the call wherein the phase value identifies the call, the mobile and the frequency channel (col 13, lines 3-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to efficiently utilize the bandwidth of a frequency channel by shifting the phase of the time slots in the channel assignment scheme even when the channel is overloaded.

Raith and Dahlin didn't further disclose: the phase value is a modulation parameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the unique modulation parameter in order to allow the system to pick the optimal parameter for modulation to get a secured call.

Regarding claim 18, Raith et al further discloses the method of claim 17 further comprising the step of associating the modulation parameter with the call so that the modulation parameter can be used for transmitting the call and referenced for receiving the call (col 13, lines 54-57).

Regarding claim 19, Dahlin further discloses the method of claim 24 wherein the evaluating step comprises comparing the transmission quality of the frequency channel to a value for the frequencies of remaining channels until the transmission quality exceeds the value or has the highest signal strength level (col 7, lines 35-43).

Regarding claim 20, Raith et al further discloses the method of claim 17 further comprising:

receiving a phase adjustment value that identifies, at least in part, a first call received on a frequency channel; and demodulating the first call on the frequency channel utilizing the phase value (col 6, lines 6-20).

Raith and Dahlin didn't further disclose: the phase value is a modulation parameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the unique modulation parameter in order to allow the system to pick the optimal parameter for modulation to get a secured call and to demodulate the received call with the assigned phase in order to have attain the data of the call.

Regarding claim 21, Dahlin further discloses the method of claim 20 further comprising the step of filtering out noise via the LNF when going the the IF stage (col 6, lines 15-20).

Regarding claim 22, Raith et al further discloses the method of claim 17 further comprising:

receiving phase data that identifies at least in part a first call of a mobile unit (col 13, lines 3-18) within a communication channel of a wireless communication network; and modulating the call utilizing the phase value (col 5, lines 54-62).

Raith et al didn't further disclose the phase is a modulation parameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a modulation parameter in Dahlin based on to distinguish and allocate the call so that the phase will be assigned to each different call.

Regarding claim 24, Dahlin further discloses the method of claim 17, further comprising:

measuring a transmission quality via the signal level meter 129' (fig. 3) of the frequency channels individually;

evaluating the transmission quality of each frequency channel via 130' until a first frequency channel having a suitable transmission quality is identified by ranking dedicated channels based on the evaluation of the signal strength (col 7, lines 30-43).

Regarding claim 25, Dahlin and Raith further discloses the system in claim 1, the system of claim 1, wherein Dahlin further disclose the modulation control device is coupled to a wireless transceiver (fig. 3) that assigns the call to one of the plurality of wireless frequency channels (col 9, lines 60-63).

Regarding claim 26, Dahlin and Raith further discloses the system in claim 1, wherein Dahlin and Raith fail to further disclose the modulation parameter assigned to the call is a phase adjustment value. Giusto discloses the modulation parameter assigned to the call is a phase adjustment value (col 3, lines 1-34; fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a phase adjustment value in order to for the system of Dahlin and Raith to have a particular phase shift for assigning each separate call.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lana N Le whose telephone number is (703) 308-5836. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F Urban can be reached on (703) 305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lana Le

August 23, 2004

8/23/04

QUOCHIEN B. VUONG
PRIMARY EXAMINER

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlin (US 5,199,031) in view of Raith et al (US 5,729,531).

Regarding claim 1, Dahlin discloses a system for assigning a call to one of a plurality of wireless frequency channels in a wireless communication network, comprising: a wireless transceiver that assigns the call to one of the plurality of wireless frequency channels after measurements are made to select the channel with the best signal strength; and a modulation control device 130' (figure 3) that identifies one of the plurality of wireless frequency channels for the call and provides an assignment modulation parameter to the transceiver for assigning the call to the frequency channel (col 7, lines 30-43; col 7, lines 54-61). However, Dahlin didn't specifically disclose wherein the assignment modulation parameter include a phase. Raith et al discloses the assignment modulation parameter include a phase. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a phase in the assignment modulation parameter in order to achieve better efficiency with reduced noise level.

Regarding claim 2, Raith further discloses the system in claim .1, wherein the wireless communication network comprises an advanced mobile phone system (AMPS) network (col 1, lines 20-30).

Regarding claim 3, Dahlin further discloses the system in claim 1, wherein the modulation control device provides assignment modulation parameters including timeslot and frequency to the transceiver (col 2, lines 20-30).

Regarding claim 4, Dahlin further discloses the system in claim 3, wherein the wireless communication network comprises a time division multiple access wireless network (col 2, lines 20-30).

Regarding claim 5, Raith et al further discloses the system in claim 3, wherein the wireless communications network comprises a time division multiple access personal communications system IIPCS network (col 1, lines 35-40).

Regarding claim 6, Dahlin further discloses the system in claim 3, wherein the wireless communications network comprises a time division multiple access global system for mobile communications (GSM) network (col 1, lines 39-67).

Regarding claim 7, Dahlin discloses a modulation control device 130' for use in a wireless communication network to assign a call to a next frequency channel selected from a plurality of frequency channels, comprising:
a threshold detector 129' that measures a transmission quality of each frequency channel; and a modulation control mechanism 130' that selects the next available frequency channel based on the frequency channel quality measurement of the threshold detector whereby the call is assigned to the next available frequency channel

(col 7, lines 18-22; col 8, lines 5-8). Dahlin didn't further disclose the modulation control mechanism selects a phase adjustment value, and the call is assigned to the next available frequency channel at the selected phase adjustment value. Raith et al further discloses the modulation control mechanism selects a phase adjustment value the call is assigned to the next available frequency channel at the selected phase adjustment value (col 13, lines 2-8; col 13, lines 39-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign the next available channel in order to allocate the next highest signal level channel to optimize channel efficiency and reduce noise.

Regarding claim 8, Dahlin further discloses the modulation control device of claim 7, wherein the modulation control mechanism 130' calculates the phase adjustment value to assign to the frequency channel (col 5, lines 55-65).

Regarding claim 9, Raith et al further discloses the modulation control device of claim 7, wherein the modulation control mechanism stores a plurality of phase adjustment values (table 1&2).

Regarding claim 10, Raith et al further discloses the modulation control device of claim 7, wherein the modulation control mechanism selects the phase adjustment value that maximizes the phase separation between the calls on a single frequency channel (table 1).

Regarding claim 11, Raith et al further discloses the modulation control device of claim 7, wherein the modulation control mechanism selects the phase adjustment value

that provides a unique resultant phase value for the call on the frequency channel (col 12, lines 29-36).

Regarding claim 12, Dahlin discloses a mobile unit (figure 2) for use in a wireless communication network with a plurality of frequency channels, comprising:

a transceiver that transmits and receives via frequency synthesizer 124 and 125; a mobile modulation control device 130 that receives a phase value and a modulating/demodulating a carrier frequency according to the pi/4 DQPSK (col 5, lines 55-65; col 6, lines 15-20). Dahlin didn't further disclose receiving a phase adjust value over the wireless communication network, and providing the phase adjustment value to the transceiver for call retrieval during demodulation and for modulation during transmission. Raith et al further discloses receiving a phase adjust value over the wireless communication network, and provides the phase adjustment value to the transceiver for call retrieval during demodulation and for modulation during transmission. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a phase adjustment value to optimize volume and bandwidth on a frequency in which a mobile can still transmit/receive on a certain frequency channel even if the channel is overloaded by merely changing or shifting the phase in response to the demand and assignment from the base station.

Regarding claim 13, Dahlin discloses a method for use in a wireless communication network with a plurality of frequency channels for assigning a call to one of the frequency channels, comprising:

assigning a frequency channel to the call (col 7, lines 55-61);

Dahlin didn't further disclose:

assigning a phase adjustment value to the call;

communicating the phase adjustment value to a mobile unit that is associated with the call; and associating the phase adjustment value with the call so that the phase adjustment value can be used for transmitting the call and referenced for receiving the call. Raith et al further discloses assigning a phase adjustment value to the call; communicating the phase adjustment value to a mobile unit that is associated with the call; and associating the phase adjustment value with the call so that the phase adjustment value can be used for transmitting the call and referenced for receiving the call (col 13, lines 38-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a phase to a mobile in order to efficiently distribute the mobiles to all the channels by allocating the mobiles to different phases based on the identification number of the mobile.

Regarding claim 14, Dahlin discloses a method for use in a wireless communication network with a plurality of frequency channels for assigning a call to one of the frequency channels, comprising: measuring a transmission quality via the signal level meter 129' (fig. 3) of the frequency channels individually; evaluating the transmission quality of each frequency channel via 130' until a first frequency channel having a suitable transmission quality is identified by ranking dedicated channels based on the evaluation of the signal strength (col 7,lines 30-43); and assigning the call to the first frequency channel (col 7,lines 55-61). Dahlin didn't further disclose assigning a first phase adjustment value to the call. Raith et al further discloses assigning a first

phase adjustment value to the call (col 13, lines 39-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a first phase in order to assign an initial phase value which can be changed or reallocated by the base station (col 13, lines 39-65).

Regarding claim 15, Raith et al further discloses the method of claim 14 further comprising the step of associating the phase adjustment value with the call so that the phase adjustment value can be used for transmitting the call and referenced for receiving the call (col 13, lines 54-57).

Regarding claim 16, Dahlin further discloses the method of claim 14 wherein the evaluating step comprises comparing the transmission quality of the frequency channel to a value for the frequencies of remaining channels until the transmission quality exceeds the value or has the highest signal strength level (col 7, lines 35-43).

Regarding claim 17, Dahlin discloses a method for use in a wireless communication network with a plurality of frequency channels divided into a plurality of timeslots for assigning a call to at least one of the timeslots in one of the frequency channels (col 7, lines 20-22), comprising: measuring a transmission quality of the frequency channels individually during each timeslot via signal level meter 129'; evaluating the transmission quality via 130' of each frequency channel during each timeslot until a first frequency channel having a suitable transmission quality is identified by ranking and choosing the highest signal level channel (col 7, lines 30-43); and assigning the call to the first frequency channel (col 7, lines 55-61). Dahlin didn't further disclose assigning a first phase adjustment value to the call. Raith et al further

discloses assigning a first phase adjustment value to the call (col 13, lines 3-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to efficiently utilize the bandwidth of a frequency channel by shifting the phase of the time slots in the channel assignment scheme even when the channel is overloaded.

Regarding claim 18, Raith et al further discloses the method of claim 17 further comprising the step of associating the phase adjustment value with the call so that the phase adjustment value can be used for transmitting the call and referenced for receiving the call (col 13, lines 54-57).

Regarding claim 19, Dahlin further discloses the method of claim 17 wherein the evaluating step comprises comparing the transmission quality of the frequency channel to a value for the frequencies of remaining channels until the transmission quality exceeds the value or has the highest signal strength level (col 7, lines 35-43).

Regarding claim 20, Dahlin discloses a method for use by a mobile unit (figure 2) to receive calls which are transmitted with a phase value (col 5, lines 55-65) and demodulating the first call on the frequency channel utilizing a phase value according to the pi/4 QPSK demodulation. Dahlin didn't further disclose receiving a phase adjustment value that identifies, at least in part, a first call received on a frequency channel. Raith et al further discloses receiving a phase adjustment value that identifies, at least in part, a first call received on a frequency channel; and demodulating the first call on the frequency channel utilizing the phase adjustment value (col 6, lines 6-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to demodulate the received call with the assigned phase in order to not loose

the call while still being able to demodulate the call using the predetermined phase determined by the base station.

Regarding claim 21, Dahlin further discloses the method of claim 20 further comprising the step of filtering out noise via the LNF when going the the IF stage (col 6, lines 15-20).

Regarding claim 22, Dahlin discloses a method for use by a mobile unit to transmit calls which have been assigned a phase value, comprising:; and modulating the call utilizing the phase value (col 5, lines 54-62). Dahlin didn't further disclose receiving a phase adjustment value that identifies, at least in part, a first call. Raith et al further discloses receiving a phase adjustment value that identifies, at least in part, a first call (col 13, lines 3-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a phase in Dahlin based on some parameter such as the MIN to distinguish and allocate the call.

## ***Conclusion***

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 ( for formal communications intended for entry)

or:

( for informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to the Crystal Park II, 2021 Crystal Drive,

Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or communications from the examiner should be directed to Lana Le whose telephone number is (703) 308-5836 and to the supervisory patent examiner Daniel Hunter whose telephone number is (703) 308-6732.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-6750.

Lana Le

May 19, 2002

DANIEL HUNTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600